

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>33221P WO</b>	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. <b>PCT/EP2004/007592</b>	International filing date (day/month/year) <b>09.07.2004</b>	Priority date (day/month/year) <b>11.07.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>C09D175/04, C08G18/08, C08F283/00</b>		
Applicant <b>CONSTRUCTION RESEARCH &amp; TECHNOLOGY GMBH</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007592

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-31 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 2-25 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 1 \_\_\_\_\_ received by this Authority on 07.03.2005 with letter
- nos.\* \_\_\_\_\_ received by this Authority on of 07.03.2005
- ☐ the drawings:
- sheets \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007592

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-25	YES
	Claims		NO
Inventive step (IS)	Claims	1-25	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

**2. Citations and explanations (Rule 70.7)****1. Reference is made to the following documents:**

D1: EP-A-0 339 862 (ICI PLC; ICI RESINS BV (NL);  
ICI AMERICA INC (US)) 2 November 1989  
(1989-11-02)

D2: DE 197 22 403 A (DAINIPPON INK & CHEMICALS)  
4 December 1997 (1997-12-04)

D3: WO 00/37518 A (KERN ALFRED; MAIER ALOIS (DE);  
INGRISCH STEFAN (DE); WEICHMANN JOSEF)  
29 June 2000 (2000-06-29)

**2. Novelty**

The present application concerns an aqueous polyurethane hybrid dispersion, which is produced by radical polymerisation of a monomer component (B) in the presence of a laterally fluorine-modified, anionically stabilised polyurethane dispersion with a polymer-bound fluorine content of up to 5 wt.% and an initiator (C) (claim 1). The present application also concerns the corresponding method (claim 16) and the use of the polyurethane hybrid dispersion (claim 22).

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Document D3 does not disclose a fluorine-modified polyurethane dispersion. The polyurethane dispersion in document D2 is not laterally fluorine-modified. The fluorine content of the basic polyurethane in document D1 is approximately 14 wt.% ( $65.7 \times 0.364 / (100+11+65.7)$ ).

The subject matter of claims 1-25 of the present application is thus novel over documents D1-D3.

### 3. Inventive step

Document D1 is considered the closest prior art.

Document D1 discloses a polyurethane dispersion based on a laterally fluorine-modified basic polyurethane with a fluorine content of approximately 14 wt.% (see example 1).

The subject matter of the present application differs from the subject matter of document D1 in that the fluorine content of the polyurethane is at most 5 wt.%.

The present application addressed the problem of developing an aqueous polyurethane hybrid dispersion for treating surfaces to make them permanently oil- and water-repellent (see page 4, lines 21-29).

That problem was solved by a basic polyurethane

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with a fluorine content of up to 5 wt.% (see the examples).

That solution is not proposed in document D1 and is also not obvious from a combination of document D1 with documents D2 and D3.

The subject matter of claims 1-25 of the present application thus involves an inventive step in relation to documents D1-D3.